What is claimed is:

1. A digital broadcast recording/reproducing apparatus, comprising:

a tuner for receiving a digital-broadcast signal to output a predetermined transport stream (TS);

a recording signal generator for generating a partial TS by extracting packets associated with a prescribed broadcast program from the predetermined TS to deliver the partial TS to a record medium;

a recorder for recording the partial TS delivered from the recording signal generator on the record medium;

a control table processor for creating a control table with an entry of a data amount of video signals and an entry of a time information, for every time that the recording signal generator provides the record medium with a prescribed reproducing unit of the video signal contained in the partial TS;

a maximum bit rate calculator for calculating bit rates of the prescribed reproducing unit of the video signal from the prescribed reproducing unit of the video signal and the time information at the time that the control table processor has created the control table;

a signal processor for reproducing the partial TS from the record medium by setting the bit rate higher than the maximum bit rate by a prescribed value as a reproduction bit rate of the partial TS reproduced from the record medium; and

a TS (TS) for depacketizing the partial TS provided from signal processor.

2. A digital broadcast recording/reproducing apparatus as claimed in claim 1, wherein the signal processor inserts a null packet into the partial TS according to the ratio of the reproduction bit rate and the prescribed reproducing unit of the video signal at the time of reproducing the prescribed program with a normal speed.

3. digital broadcast recording/reproducing apparatus as claimed in any one of claims 1 and 2, further comprising a free-running STC counter;

wherein the control table processor

calculates a first difference value of the STC count value and a PCR (Program Clock Reference) value, for every time that the recording signal generator detects a packet containing the PCR value from the partial TS of the prescribed program, and

creates the time information of the control table from the sum of the STC count value and the first difference value, for every time that the recording signal generator provides the prescribed reproduction unit of the video signal to the record medium,

and wherein the signal processor calculates a second difference value of the STC count value on the control table corresponding to the prescribed reproduction unit of the video signal and the STC count value of the STC counter, at the time

that a head portion packet of the prescribed reproduction unit of the video signal reproduced from the record medium is provided to the TS decoder, and provides a data packet to the TS decoder as the head portion packet of the prescribed reproduction unit of the video signal when the STC count value on the control table corresponding to the prescribed reproduction unit of the video signal is not larger than the sum of the second difference value and the STC count value of the STC counter, while, when the STC count value is larger than the sum, the signal processor provides the TS decoder with the partial TS as a null packet at the reproduction bit rate at the time of reproducing the prescribed program with the normal reproduction speed.

4. A digital broadcast recording/reproducing apparatus as claimed in claim 3, wherein the signal processor substitutes a PCT (Program Clock Reference) value with a sum of the STC count value of the STC counter and the second difference value, at the time that a packet containing the PCR value from the partial TS reproduced from the record medium.

5. A digital broadcast recording/reproducing apparatus as claimed in claim 4, wherein, upon a fast-forward or fast-reverse trick play reproducing operation, the signal processor provides the TS decoder with a MPEG-2 video signal contained in the partial TS reproduced from the record medium, by not only adding a packet having the STC count value on the control table corresponding to

the prescribed reproducing unit as the PCR value before providing the prescribed reproducing unit of the video signal to the TS decoder, but also setting a discontinuity indicator flag to the packet.

6. A digital broadcast recording/reproducing apparatus as claimed in any one of claims 3 and 4, wherein, the signal processor replaces the PCR value or a time-stamp value with the STC count value of the STC counter, when the PCR value or the time-stamp value has been detected.

7. A digital broadcast recording/reproducing apparatus as claimed in any one of claims 1 through 5, the prescribed reproducing unit is a GOP or a picture data at a coding unit of the MPEG-2 video signal.

8. A digital broadcast recording/reproducing apparatus as claimed in any one of claims 1 through 4, wherein the signal processor detects at least one of a Payload Unit Start Indicator contained in the TS and a Random Access Indicator contained in an Adaptation Field, or at least one of a Sequence Header Code, a Group Start Code and a Picture Start Code contained in the video stream for detecting the prescribed reproduction unit of the video signal.

9. A digital broadcast recording/reproducing apparatus as claimed in any one of claims 1 through 4, wherein, at a time of reproducing accumulated TSs with a fixed bit rate, a maximum bit rate or a bit rate higher than the maximum bit rate by a prescribed value is reproduced by being set as a reproduction bit rate of the partial TS.

10. A digital broadcast recording/reproducing apparatus as claimed in claim 9, further comprising a depacketizer, and wherein, at a time of normal speed reproduction, the depacketizer provides data packets, while interposing null packets among the data packets in accordance with a ratio of the reproduction bit rate and the fixed bit rate

11. A digital broadcast recording/reproducing apparatus according to claim 10, wherein, upon detection of packet containing a first PCR value after an initiation of normal reproduction, a difference value of the PCR value and a free-running STC count value is detected, and wherein, upon detection of packet containing following PCR, the PCR is replaced by a sum of the difference value and the STC count value.